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FEBRUARY 10 1992

Mr. Daniel W. McGovern
Regional Administrator
United States Environmental
Protection Agency, Region IX
75 Hawthorne Street
San Francisco, CA 95105-3901

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) REVIEW OF THE 1991 WATER QUALITY
CONTROL PLAN FOR SALINITY--SAN FRANCISCO BAY/SACRAMENTO-SAN JOAQUIN
DELTA ESTUARY (1991 BAY-DELTA PLAN)

Dear Mr. McGovern:

I have reviewed your September 3, 1991 letter which sets forth the EPA actions regarding the State Water Resources Control Board's (State Water Board) 1991 Bay-Delta Plan. I was pleased that EPA approved the municipal and industrial and the agricultural salinity objectives as well as the dissolved oxygen objective for the San Joaquin River contained in the 1991 Bay-Delta Plan. I was disappointed that EPA disapproved the remaining fish, wildlife and estuary habitat objectives.

Summary

During the water quality phase of the Bay-Delta proceedings, the State Water Board Members recognized that there were some specific concerns regarding protections for the various beneficial uses that could be properly addressed through water quality policy or water quality objectives. It also became apparent that some beneficial uses were best protected by water flow, export limitations or other water project operational constraints during specific times of the year. To ensure that changes in flow requirements and operational constraints were accompanied by the full procedural protections required before water rights are amended to implement such changes, we decided to bifurcate the process and reserve our consideration of changes that directly effect water rights until the water right phase. We then continued the process which led to the development and State Water Board adoption of the 1991 Bay-Delta Plan. The 1991 Bay-Delta Plan is narrowly focused on salinity, temperature and dissolved oxygen objectives. It does not set flow requirements or other operational parameters. Also, the 1991 Bay-Delta Plan is a part of the larger package of protective measures being developed under State law. Since the Clean Water Act does not address water allocation, it cannot be relied upon to protect all beneficial uses. Establishing instream flow and operational requirements needed to protect beneficial uses is appropriately accomplished through State law.

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Since it adopted the 1991 Bay-Delta Plan, the State Water Board has continued the proceedings to determine what supplemental protection beyond the 1991 Bay-Delta Plan ought to be afforded the beneficial uses in terms of flow and operational constraints. To that end, we are developing an Environmental Impact Report (EIR) containing alternative flow requirements and measures to implement both the 1991 Bay-Delta Plan's requirements and the requirements which will be considered in the Water Right Phase of the proceedings.

We are adhering to the proceedings' schedule which is to: (1) develop and distribute a draft EIR; (2) hold water right hearing(s); and (3) adopt a final EIR and water right decision by December 1992. This process is intended to determine the flows and operational constraints needed in the Estuary, in addition to the provisions already in place, for protection of the public trust resources in the Estuary. Further, this process will provide the data needed to develop equitable sharing of the responsibility of projects having effects on these public trust resources.

I believe our two agencies have similar goals. However, your rejection of the 1991 Bay-Delta Plan because it lacks salinity standards for the Bay, downstream of the Delta, is not supported by the record. Salinity standards for the Bay would not restore and protect habitat conditions, which primarily are affected by water project operations and their effect on water flow (See page 1-4 1991 Bay-Delta Plan.). Most information presented to the State Water Board specifically addressed the need for flow requirements to protect various beneficial uses, not salinity objectives. The State Water Board is making a comprehensive assessment that will address both flow requirements and operational constraints.

The State Water Board is satisfied that it provided appropriate salinity, temperature and dissolved oxygen objectives for those beneficial uses for which there was evidence of a need for this type of protection. The State Water Board will establish flow requirements and water project operational constraints appropriate to the needs of the Bay-Delta's public trust resources after considering all relevant evidence submitted for the water rights record during its continuing proceedings. After completion of the water right phase, at or before the next triennial review of the 1991 Bay-Delta Plan, the State Water Board will again review the water quality objectives.

I emphasize that the State Water Board has not completed its review of the Estuary. The State Water Board has adopted some of the requirements it was considering but still is considering others. Without a completed review of water regulation in the Estuary, your disapproval of this part of the proceedings is premature. Furthermore, the State Water Board also believes that your disapproval of the objectives was premature since your agency seemed to select the more stringent of conflicting testimony rather than perform technical analysis.

Below we provide specific responses to the comments made in your September 3, 1991 letter.

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SPECIFIC RESPONSE TO EPA'S DISAPPROVAL OF STANDARDS

I. Objectives Protecting Estuarine Habitat Uses

At the outset, the September 3, 1991 letter states that "[u]nder Section 303 of the Federal Clean Water Act and EPA's implementing regulations, states are to establish designated uses for water bodies, and must adopt water quality criteria sufficient to protect those designated uses." The letter further states that "[i]n reviewing water quality criteria EPA considers whether the criteria contain sufficient parameters to protect the designated uses and are based on sound scientific rationale." While the State Water Board generally agrees with this formulation of Federal law, the State Water Board would submit that EPA's authority is limited to the consideration of sufficient water quality parameters to protect the designated uses. This characterization means that designated uses are to be protected by water quality parameters to the extent that reductions in water quality will adversely affect the designated uses. This characterization of the Clean Water Act would exclude from EPA review, operational parameters such as closure of the Delta Cross-Channel Gate, or diversion limitations on the project pumping facilities in the South Delta. Such operational parameters, as opposed to water quality parameters, do not fall within the definition of water quality criteria under the Clean Water Act. Moreover, the Act's affirmation of state control of water allocation decisions under Section 101(g) further supports the above-mentioned limitation on EPA's authority to review the water quality criteria in the 1991 Bay-Delta Plan.

As you may be aware, many of the beneficial uses you cite in this section include resources which have antagonistic optimal conditions. For example, some beneficial uses, e.g., shellfish harvesting, require greater concentrations of saltwater for shellfish habitat; others, e.g., fish migration, require brackish to freshwater for appropriate guidance responses. Simply providing greater amounts of freshwater to dilute ocean salinity would not provide better habitat for all the public trust resources of this Estuary.

We agree that the Striped Bass Index (SBI) is a measure of the health of the Estuary. We also agree that the SBI has been declining precipitously and that the current standards apparently are inadequate to protect this fishery. However, the current standards include water quality objectives, export restrictions and flow. Except for salinity in the San Joaquin River, which will be discussed later, no indication exists in the proceedings records that the decline is linked to salinity, not by the California Department of Fish and Game, not by the U.S. Fish and Wildlife, nor by any other environmental protection group. Recent information by the Department of Fish and Game indicates that this decline is best explained by the long-term effects of low flows and elevated export rates. The State Water Board will consider the effects of project operations and flow levels during the Water Right Phase of the proceedings.

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Similarly, in regard to the other fish addressed in this section of your letter, i.e., Chinook salmon winter-run, Delta smelt and Sacramento splittail, various hypotheses have been forwarded regarding their decline including loss of upstream habitat, invasion of exotic zooplankton and invertebrates, low river flows, entrainment into diversions, etc. Salinity changes (except as used as a surrogate for river flow) have not been implicated in the decline. The State Water Board will evaluate how best to stop the declines and what the various species need to maintain their populations. Providing only additional outflow will not necessarily help a declining fishery. For example, a study indicates that if flows are above a certain level, the Delta smelt are washed into San Pablo Bay, which may be a more hostile environment for them than Suisun Bay (WQCP-SWRCB-47).

In the first paragraph at the top of page 5 of your letter you discuss the 1987 Triennial Review Letter from EPA. Review of this letter makes it obvious that EPA knew the SBI is a flow issue. The letter states, "The striped bass index (SBI), was based upon a relationship between flow and young striped bass survival." The 1987 letter goes on to state, "This specific target SBI quantitatively defines the success of the Delta flow standards in protecting the fishery." (Letter from Judith E. Ayres, Regional Administrator, EPA, to Mr. W. Don Maughan, Chairman, SWRCB, dated June 29, 1987.) (Administrative Record, Part I.C. 15.) As stated above, the State Water Board agrees. Based upon our analysis, salinity is not the issue regarding striped bass decline, flow is. The State Water Board is addressing the flow issue during the Water Right Phase of the proceedings.

Your citation at the end of the first paragraph on page five is incorrect. The citation should read II-47 not II-59; it appears that you may have made your comments on a draft rather than the final 1991 Bay-Delta Plan.

The State Water Board believes that the water quality objectives adopted in the 1991 Bay-Delta Plan provide the fullest protection needed for the beneficial uses of this Estuary with regard to salinity, temperature and dissolved oxygen objectives. Flow and entrainment appear to be the primary causes of extant problems and these factors will be addressed in the Water Right Phase of the proceedings.

II. Salinity Objectives

A. Suisun, San Pablo and San Francisco Bays

This subsection is unclear. Your statement on page six is in error. This statement claims that scientific evidence exists that support the need for salinity objectives in these bays to maintain adequate levels of productivity at the base of the food chain.

While there was much discussion about the phyto- and zooplankton found in these areas, no link could be found between phytoplankton, the base of the food chain, and higher trophic levels.

The part of the 1991 Bay-Delta Plan you referenced, at page 5-44, addresses the entrapment zone and the salinity levels that occur there, but you never explicitly identified that you are interested in establishing the location of the entrapment zone with its characteristic salinity levels during March through June, in one of the three bays. You recommended that a maximum salinity objective of 2 parts per thousand (ppt) should be established at appropriate locations in the bays, or an alternative objective that is scientifically defensible and protective of the designated uses.

We believe that (1) setting salinity objectives to establish a location for the entrapment zone would be the wrong approach, and (2) it is questionable whether setting objectives to establish a location for an entrapment zone would benefit the beneficial uses.

First, the entrapment zone is an area that may be found in San Francisco, San Pablo, Suisun bays, or in upstream areas by sampling for a salinity gradient between about 2 to 10 ppt. This is a characteristic of the zone wherever it is located. The maximum salinity in the entrapment zone generally is 10 ppt. While you stated that salinity standards are needed in all three bays, Suisun, San Pablo, and San Francisco, you only discussed Suisun Bay. Your intention is unclear.

The location of the entrapment zone is determined not by salinity levels but by outflow of water in the Estuary. The salinity range will be approximately the same wherever the entrapment zone is located. As the name entrapment zone implies, its possible significance for beneficial uses appears to be a function of water circulation patterns, not the effect of any water quality constituents on aquatic species. Hence, entrapment zone issues should be considered a matter for regulation by flow requirements, not by salinity standards. We are developing flow requirements in the Water Right Phase of the Bay-Delta proceedings.

Second, we have no sound scientific rationale for setting salinity standards in the bays at this time. The record of the 1991 Bay-Delta Plan does not support a need for more food production at the base of the food chain. Likewise, documents published since the State Water Board adopted the 1991 Bay-Delta Plan do not support a need for more food production.

In August 1991, after the State Water Board adopted the 1991 Bay-Delta Plan, the San Francisco Estuary Project, an environmental management program sponsored in part by the EPA, held a Technical Workshop on the Entrapment Zone. A working paper entitled, "A DISCUSSION OF ISSUES RELEVANT TO THE ENTRAPMENT ZONE IN THE SAN FRANCISCO BAY ESTUARY" was compiled by Wim Kimmerer et al., and distributed in July 1991 for the purpose of helping to focus the workshop. The paper lists as factors defining the entrapment zone "local bathymetry, variations in the tides and wind, small variations in freshwater inflow, and measurement limitations of current meters." (Ibid., pg. 9). These factors do not address water quality, but instead include flow considerations.

The paper indicates that while the entrapment zone may redistribute food sources in the Bay (Ibid., pg. 8) growth rates of organisms may not be enhanced there (Ibid., pg. 3). The main effect of the entrapment zone appears to be enhanced concentration of organisms (Ibid., pg. 10). The dominant means of enhancing productivity at the lower trophic levels apparently is gravitational circulation (Ibid., pg. 13). Zooplankters do not appear to be food limited. There is no evidence that zooplankton growth rates or feeding rates are "enhanced in the EZ (entrapment zone) relative to other locations in a given year." (Ibid., pg. 16). "[T]here is no evidence that the growth rate or mortality rates of any species are altered in the EZ relative to other locations." (Ibid., pg. 17).

Striped bass do not appear to obtain a growth or survival advantage related to more food in the entrapment zone, when compared to upstream areas. (However, the further downstream from the Delta they are, the less they are subject to entrainment)(Ibid., pg. 19). Also, while striped bass are an estuarine species, there are self-sustaining freshwater populations in water bodies where there are no entrapment zones (Ibid., pg. 21).

Also, the November 1991 newsletter of the San Francisco Estuary Project, "Project Update" states that results of the above mentioned workshop include: "Currently, there is too much uncertainty regarding EZ (entrapment zone) benefits to justify setting a standard for a specific EZ location. Near bottom salinity may be a more effective and straightforward surrogate for managing Delta outflows." Based on the above information it appears that the need for an entrapment zone, at least as presently defined, is in question. Due to the topography of this Estuary, there will always be an area wherein a range of 2 to 10 mS/cm EC will be found. If testimony is presented to the State Water Board substantiating the need for an entrapment zone and an appropriate site, the State Water Board will consider the flows needed to produce this condition.

B. San Joaquin River

1. In this section you state that the salinity objective in the reach between Prisoners Point and Vernalis does not protect the designated fish spawning use. Therefore, you disapproved it. Your concern is that the objectives do not protect striped bass spawning between Prisoners Point and Vernalis.

We believe that it is premature to consider establishing new salinity standards for fish spawning in the lower San Joaquin River between Prisoners Point and Vernalis, until we have decided whether and to what extent the eggs and larvae produced by any spawning in that reach can be protected from entrainment by the export pumps and other diversions. As long as the eggs and larvae would be entrained if they were produced, it would be futile to encourage striped bass to spawn in that reach. The State Water Board is addressing the entrainment problem during the Water Right Phase of the proceedings.

After considering the entrainment problem, the State Water Board will consider the effects of lowering salinity in the lower San Joaquin River. Meanwhile, we know that agricultural return flows are adding salinity to San Joaquin River water. To expedite salinity considerations, the State Water Board requested in the 1991 Bay-Delta Plan that the Central Valley Regional Water Quality Control Board develop and adopt a salt-load reduction program. This Regional Board is expected to discuss how it intends to implement this program during the Water Right Phase of these proceedings.

We believe that entrainment is the primary cause of the striped bass decline. After the State Water Board establishes protection from entrainment in the Water Right Phase, we will look at the water quality objectives to determine if change is needed during a triennial review. As we state on page 6-21 of the 1991 Bay-Delta Plan, "[d]ata supporting the 0.44 mmhos/cm EC are not without question and the data on the potential effects of extending the striped bass spawning protection from Prisoners Point to Vernalis are too inconclusive to warrant setting the potential objective as the water quality objective". Therefore, the State Water Board will revisit both the appropriate salinity level and the length of the protected spawning area, after the entrainment problem is solved.

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2. On page 8 of your letter you disapproved both the Antioch objective for striped bass and the relaxation provision of this objective. There are three incorrect citations on page 8. They are: (1) the citation in the middle of the third paragraph should read 5-33 not 5-30; (2) the citation at the end of this paragraph should read 7-22 not 5-33; and (3) the citation for the quote in the last paragraph on this page should be 5-33 not 5-32.

Apparently you are misreading our analysis in the 1991 Bay-Delta Plan. While we stated that, "[t]he use of 1.5 mmhos/cm EC at Antioch for spawning protection appears not to be generally appropriate", we went on to state that this objective, "may continue to serve the purpose of being an ultimate delimiter of spawning habitat; the Antioch objective can also be considered an "implementing measure" since maintaining that objective should produce less saline, and thus more suitable habitat, upstream of Antioch in the San Joaquin River". In other words, this objective is not intended to protect spawning at Antioch, but rather is a measure to protect spawning upstream of Antioch in a reach that extends some distance between Jersey Point and Prisoners Point. While an additional objective could be considered, we believe that this objective should be retained. We could not add another objective at this time because we lack an adequate scientific basis to determine the protected reach. The California Department of Fish and Game requested that we continue the Antioch objective (T,LXXIV,104:4-104:19).

The EPA ignores the fact that the purpose of the Antioch objective is to establish an area from Prisoners Point downstream which provides suitable spawning habitat for striped bass. The length of this area depends on the amount of Delta outflow. This linkage is obscure. Therefore, the State Water Board requested the Department of Fish and Game, "to analyze the protective values of setting up a specific spawning habitat zone of 0.44 mmhos/cm EC, or some other more appropriate EC value, in the river reach between Jersey Point and Prisoners Point." (See pg.7-22, 1991 Bay-Delta Plan). Additionally, the salinity objective for agriculture at Jersey Point, except in critical dry years, is 0.45 mmhos/cm EC. With this objective, a protected reach useable for striped bass spawning exists between Jersey Point and Prisoners Point.

The 1.5 mmhos/cm EC objective for Antioch is relaxed during dry and critical dry years, up to 3.7 mmhos/cm EC. When EPA approved the 1978 Delta Plan, we agreed, based on calculations, that the Suisun Marsh standards would prevent the EC at Antioch from exceeding 3.7 mmhos/cm EC. As a result of reviewing monitoring data from this area during the drought, we realized that the Suisun Marsh standards at

Chippis Island were not maintaining the EC at no worse than 3.7 mmhos/cm EC at Antioch during a critical water year. Therefore, we adopted specific objectives in the 1991 Bay-Delta Plan for Antioch which provide that at no time during the spawning period of April 1 to May 31 shall the EC be permitted to exceed 3.7 mmhos/cm. This will maintain the salinity at the level EPA agreed was protective in connection with the 1978 Delta Plan, until we can develop a new scientifically defensible objective for relaxation.

The evidence in the hearing record does not provide a focus for any additional scientifically defensible, modifications to the striped bass spawning objectives. The State Water Board needs the data that will be developed by the Department of Fish and Game before considering new salinity objectives between Prisoner's Point and Antioch. If this information becomes available before the next triennial review, we will consider revising the objectives at that time, as your letter suggests.

C. Suisun Marsh

The Suisun Marsh salinity objectives are addressed on page 9 of your letter. The last sentence on this page requests that the State Water Board, "immediately develop salinity objectives sufficient to protect aquatic life and the brackish tidal wetlands surrounding the Marsh." In the 1978 Delta Plan, the State Water Board directed the U.S. Bureau of Reclamation and the California Department of Water Resources to develop a fully documented plan to protect the Suisun Marsh in cooperation with other interested agencies.

The plan they developed is in the form of an agreement among the U.S. Bureau of Reclamation, the Department of Water Resources, the California Department of Fish and Game and the Suisun Resource Conservation District. These parties recommended that the Suisun Marsh standards contained in the 1978 Delta Plan be relaxed. Before the State Water Board considers any relaxation from the 1978 standards, we must have appropriate data to

- (1) determine the current status of the Suisun Marsh and
- (2) determine the effect of the proposed relaxation on the Suisun Marsh and other areas.

Therefore, we requested the parties to provide a biological assessment under the State and Federal endangered species acts. (See pg. 7-15, 1991 Bay-Delta Plan). The biological assessment has not been completed yet, and no other scientific information is available in the record that would support new standards, either for lower or higher salinities. As a result, we are not in a position to set

additional or different scientifically-based standards for the Suisun Marsh. If you have evidence upon which we could base standards to protect aquatic life and the brackish tidal wetlands surrounding the Suisun Marsh, please provide it.

On page 10 of your letter you discuss "Clarification of Existing Objectives". You comment incorrectly that Table 1-2 contains a set of "objectives" for the Suisun Marsh which differs from the existing objectives in the 1978 Delta Plan, even though the Suisun Marsh objectives are not amended in the 1991 Bay-Delta Plan. Table 1-2 does not contain water quality objectives, nor is it part of a water quality control plan program of implementation. Instead, its sole purpose is to explain that the levels in the table are the salinity levels in the Suisun Marsh that the State Water Project and the Central Valley Project currently are required to meet under their water right permits.

Some differences exist between the water quality objectives for the Suisun Marsh and the terms and conditions actually imposed on the water rights of the State Water Project and the Central Valley Project under their current permits. These differences are explained on page 5-46 of the 1991 Bay-Delta Plan. They do not represent changes in the 1978 Delta Plan, but rather are changes made in 1985 to the water right permits of the State Water Project and the Central Valley Project. These changes consisted of adjustments in the locations where the projects must meet the salinity requirements and an extension of time to comply with certain requirements. The water right requirement to meet salinity requirements at two stations was deleted from the projects' permits because marsh intake structures were moved inland. However, the projects still are required to monitor the salinity at those stations, and the water quality objectives for those stations remain in effect. Other water right holders may in the future be required to contribute water to meet salinity requirements in the Suisun Marsh.

III. TEMPERATURE OBJECTIVES

A. Fall-run Chinook Salmon

On page 11 of your letter, in regard to fall-run salmon, you quote the Technical Appendix as follows, "juvenile emigrants (smolts) can tolerate water temperatures somewhat higher than 60 degrees, but above about 65 degrees a variety of stress effects occur,". On pages 5.3-1 and 5.3-2 of the Technical Appendix a number of citations from the record are listed that address the effects of water temperatures on salmon smolts. (See Administrative Record, Part IV, G.17.) Your letter only quotes one of these citations. In the Delta, water temperatures have been identified as one of the factors influencing salmon smolt survival. Another quotation from that same list states, "[t]he results of the USFWS smolt survival studies indicate that

variable rates of mortality occur between 60 and 75°F depending upon the location where the smolts were released (USFWS)." Any one of the quotations, if used alone, could be used to promote a temperature objective. Also, in addition to the expert testimony presented at the hearings and workshops, over 20 publications were reviewed and considered in the development of the temperature objectives. (See pg 5.6-4 to 5.6-6, WQCP, Technical Appendix.) (Administrative Record, Part IV.G.17.) The results and conclusions in the references are often presented as ranges rather than as single values. The 1991 Bay-Delta Plan provides an analysis of the evidence at page 5-22, Section 5.5.2.2. (Administrative Record, Part IV.G.16.) Basing water quality objectives on such an analysis is a scientifically defensible method. Basing the objective on an isolated citation which appears to support a particular objective, while ignoring other relevant evidence in the record, would not be scientifically defensible.

A mean daily objective of 68°F would be considered neither optimal nor highly stressful to migrating Chinook salmon smolts. The objective is for protection of a migration corridor not rearing habitat. A mean value was chosen rather than an absolute value for many reasons, including the imprecision of measuring temperature (in regard to fractions of a degree), the variation in temperature due to daily fluctuations, and the fact that temperatures are usually measured near the surface while cooler temperatures are generally found at greater depths. Also, most of the temperature tolerance information is based on either stable laboratory temperatures or field studies using mean daily temperatures.

The 68°F temperature objective for salmon migration is also contained in the Central Valley Regional Water Quality Control Board's Water Quality Control Plan, the Region 5 Basin Plan (WQCP-SWRCB-55.) The 68°F objective is for the upstream reach between Hamilton City and the "I" Street Bridge in Sacramento. (Freeport is about 10 miles downstream of Sacramento.) The 68°F objective in the Region 5 Basin Plan was approved by EPA in 1976.

Your letter goes on to state that the 1991 Bay-Delta Plan's temperature objectives are inconsistent with DFG's 1990 Central Valley Salmon and Steelhead Restoration and Enhancement Plan, which you say states that maximum growth occurs from 54-60°F, and that growth ceases above 65°F. In actuality this plan identifies a range of temperatures from 65 to 69°F, which means that growth may cease at any temperature within this range (see pg. 78 of the above-mentioned plan). However, this information is not necessarily germane to this discussion since, as stated above the beneficial use being protected in the 1991 Bay-Delta Plan is fish migration, not growth.

On the basis of the above information and all that is contained in the 1991 Bay-Delta Plan, we believe that the temperature objective for fall-run salmon is adequately protective.

B. Winter-run Chinook Salmon

In regard to winter-run salmon, as you quote page 5-23 of the 1991 Bay-Delta Plan, "there was no testimony presented on the temperature requirements specifically for the winter-run." However, we did receive in evidence a memorandum from Mr. Bontadelli, the Director of DFG, which, in regard to temperature and salinity, states in part, "... the Department of Fish and Game anticipates that these needs would be similar to those of the more studied fall run." "Specifically, both adult and young salmon would benefit from having a gradual salinity gradient from the Delta to the ocean and temperatures that do not exceed the mid-60's." (Memo dated August 9, 1989; See 1991 Bay-Delta Plan, page 5-22.) As stated on page 5-23 of the 1991 Bay-Delta Plan, the purpose of the winter-run temperature objective is to place a ceiling on temperatures. This objective is in effect during a time period when much lower temperatures usually prevail, and is thus unlikely to be violated. Like the objective for the fall-run, this objective is to protect a migration corridor, not a rearing habitat. Also, other protections, including the State Water Board's antidegradation policy in Resolution 68-16, will usually ensure that the winter-run salmon migration is protected at a lower temperature.

C. "Controllable Factors" Limitation

We disagree with your assessment that subjecting temperature objectives to controllable factors is inconsistent with EPA regulations, and that this limitation should be placed on implementation rather than on the objective. According to 40 CFR 131.13, "States may, at their discretion, include in their State standards, policies generally affecting their application and implementation..." While such policies are subject to EPA review and approval, they are not inconsistent with EPA regulations.

Furthermore, under California Water Code Section 13242, the State Water Board could be considered to have violated State law if it failed to provide a program to fully implement reasonable water quality objectives. If we delete the "controllable factors" limitation from the objective, there will be times when it is violated and cannot reasonably be implemented. A fixed, unconditional temperature objective, would not take into account natural variations in temperature which cannot be avoided, and would result in violations despite the best efforts of the State

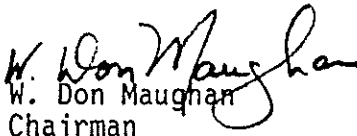
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to control temperature. The Clean Water Act at Section 303(e)(2) indicates that compliance with a continuing planning process under State statute that is approved by EPA will be considered to be compliance with the Clean Water Act. EPA repeatedly has approved California's continuing planning process; Water Code Sections 13240-13242 have been a part of that process since its inception. The Clean Water Act is designed to be flexible, to work with state statutory schemes, rather than rigidly requiring conformance with Federal procedures, in disregard of State law.

Finally, we note that as part of the 1975 Region 5 Basin Plan, which EPA approved, certain water quality objectives for temperature apply only to the extent that changes in temperature are due to "controllable factors." Such a policy on application of standards is particularly appropriate for circumstances where conditions such as weather or climate may result in elevated temperatures which are entirely beyond our reasonable control or ability to mitigate. Requiring the State to adopt standards which fail to take these circumstances into account, and are patently unreasonable and cannot be implemented as applied to those circumstances, would do nothing to improve water quality. Depriving the State of authority to adopt reasonable policies governing the applicability of objectives, such as the "controllable factors" policy for temperature objectives, would only serve to undermine the legitimacy and enforceability of the State's water quality objectives.

For all the reasons provided above, the State Water Board believes that EPA has erred in disapproving the objectives addressed in your letter of September 3, 1991. We would be happy to meet with you or your representative if you think this would help rectify the situation. In any event, we will continue to meet to share the plans for future actions by our respective agencies.

Sincerely,


W. Don Maughan
Chairman